C3.158:M3-1(77)-2

CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments, Inventories, and Orders

U.S. Department of Commerce
BUREAU OF THE CENSUS

FEBRUARY 1977

For Release March 30, 1977 2:00 P.M.
Series: M3-1(77)-2

All figures in text below are in seasonally adjusted current dollars

New orders received during February for manufactured products rose 2 percent or $1.7 billion to $107.0 billion, the Department of Commerce, Bureau of the Census reported today. New orders for nondurable goods which are essentially equal to shipments, rose $1.4 billion or 3 percent to $51.8 billion and accounted for nearly all of the increase. New orders for durable goods industries rose $0.3 billion or one-half of one percent to $55.2 billion (revised from $55.0 billion reported earlier).

Most of the rise in the nondurable figures was due to increases in the foods and chemicals industries. Shipments of food and kindred products industries rose 3 percent or $0.4 billion to $15.3 billion and shipments of chemicals rose 6 percent or $0.5 billion to $9.2 billion.

The small rise in new orders for durable goods was composed of small increases in many industries and a $0.3 billion or 2 percent decline in the machinery industries. New orders for nonelectrical machinery fell by 2 percent or $0.2 billion to $10.0 billion and new orders for electrical machinery fell by 2 percent or $0.1 billion to $6.8 billion. The decreases in both groups were based on decreases in most of the underlying industry categories. The $0.3 billion decline in the machinery industries was slightly more than offset by the other durable goods industries which, in aggregate, rose by $0.6 billion resulting in the durable goods increase of $0.3 billion.

Manufacturing inventories rose in February by 0.6 percent or $1.0 billion to $168.5 billion. Inventories held by durable goods manufacturers rose 0.7 percent or $0.8 billion to $107.3 billion continuing an upward trend which began in March 1976. Inventories held by nondurable goods manufacturers rose 0.5 percent or $0.3 billion to $61.2 billion. The upward trend in nondurable inventories began in August 1975. With the exception of the figures for December 1975 and December 1976, the figures for inventories of all manufacturers have risen continously since September 1975. For this period, the figures have shown an annual rate of increase averaging 5.6 percent.

When the basic industries are regrouped into supplemental categories, the figures for nondefense capital goods industries show a 3 percent or $0.4 billion decline in new orders to $14.4 billion. Orders for defense goods rose 8 percent or $0.1 billion to $1.8 billion. Inventories held by nondefense capital goods producers rose 2 percent or $0.5 billion to $37.2 billion accounting for over two-thirds of the overall durable goods increase.

DEPOSITORY

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for March is scheduled for release on April 21, 1977 and the full report is scheduled for release on May 2, 1977.

This report contains data on an unadjusted and seasonally adjusted basis. However, the data are not adjusted for price changes. For an explanation of terms used in this report see appendix following table 5.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call William Menth, (301) 763-2502.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 30 cents per copy, $3.60 per year.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment[1]			Seasonally adjusted			Without seasonal adjustment[1]		
	Feb. 1977p	Jan. 1977r	Dec. 1976r	Feb. 1977p	Jan. 1977r	Annual total 1976	Feb. 1977p	Jan. 1977r	Dec. 1976r	Feb. 1977	Jan. 1977r	Dec. 1976r
All manufacturing industries:												
Total[2]	106,466	103,637	105,189	107,228	96,853	1,182,497	168,515	167,482	166,587	170,463	169,300	167,299
Total, excluding transportation	93,822	91,285	90,920	94,290	85,050	1,046,975	148,927	148,237	147,466	150,572	149,672	148,069
Durable goods industries, total	54,713	53,247	55,520	54,881	49,189	604,663	107,315	106,562	105,729	108,534	107,378	105,516
Stone, clay, and glass products	2,732	2,644	2,703	2,515	2,286	30,435	4,257	4,248	4,194	4,328	4,262	4,114
Primary metals, total	7,621	7,334	7,298	7,804	6,980	88,826	17,292	17,197	17,329	17,619	17,612	17,500
Blast furnaces, steel mills	3,731	3,467	3,583	3,854	3,457	45,137	10,152	10,148	10,179	10,396	101,534	10,515
Nonferrous and other primary metals	3,031	3,020	2,910	3,100	2,745	34,110	6,173	6,100	6,178	6,228	6,125	6,030
Fabricated metal products total	7,036	6,764	6,961	6,912	6,162	79,659	13,222	13,344	13,173	13,289	13,248	12,946
Metal cans, barrels, and drums	632	562	569	571	484	7,157	1,139	1,119	1,109	1,186	1,107	1,000
Machinery, except electrical, total	9,909	9,746	9,666	10,198	9,116	109,845	24,266	24,281	23,987	24,614	24,420	23,995
Engines and turbines	901	920	830	887	827	9,662	1,969	1,951	1,917	2,001	1,948	1,922
Farm machinery and equipment	922	940	956	943	887	10,087	2,239	2,341	2,323	2,358	2,397	2,309
Construction, mining, and material handling equipment	1,719	1,662	1,726	1,812	1,607	19,617	5,574	5,513	5,623	5,702	5,601	5,657
Metalworking machinery	555	524	576	574	491	6,523	1,592	1,577	1,555	1,598	1,578	1,541
General industrial machinery	908	811	850	913	723	9,642	2,441	2,526	2,472	2,477	2,534	2,420
Electrical machinery, total	6,569	6,546	6,700	6,651	6,012	72,039	14,278	14,054	14,112	14,334	14,084	13,977
Electrical transmission and distribution equipment and industrial apparatus	1,294	1,323	1,231	1,348	1,190	13,663	2,900	2,901	2,884	2,917	2,915	2,882
Household appliances	936	887	902	887	726	9,783	1,554	1,466	1,504	1,584	1,519	1,505
Radio and TV	462	444	465	467	386	5,584	763	803	816	727	748	781
Communication equipment	1,654	1,663	1,820	1,682	1,651	18,467	4,317	4,161	4,239	4,412	4,248	4,217
Transportation equipment, total	12,644	12,352	14,269	12,938	11,803	135,522	19,588	19,245	19,121	19,891	19,628	19,230
Motor vehicles and parts	8,553	8,556	10,036	8,883	8,362	91,115	6,543	6,429	6,301	6,654	6,622	6,376
Aircraft, missiles, and parts	2,603	2,265	2,729	2,717	2,224	28,363	10,289	10,081	10,126	10,420	10,214	10,107
Shipbuilding and military tank vehicles	582	638	654	554	589	6,981	1,240	1,247	1,200	1,243	1,263	1,255
Instruments and related products, total	2,275	2,228	2,198	2,210	2,036	24,905	4,727	4,657	4,574	4,705	4,594	4,535
Scientific and engineering	1,343	1,356	1,283	1,352	1,294	14,563	2,915	2,896	2,816	2,915	2,882	2,853
Photographic goods	756	687	747	684	571	8,314	1,320	1,296	1,269	1,307	1,257	1,206
All other durable goods industries	5,927	5,633	5,725	5,653	4,794	63,432	9,685	9,536	9,239	9,754	9,530	9,219
Nondurable goods industries, total[2]	51,753	50,390	49,669	52,347	47,664	577,834	61,200	60,920	60,858	61,929	61,922	61,783
Food and kindred products, total[2]	15,259	14,842	14,603	15,443	14,209	176,150	15,786	15,775	15,648	16,094	16,378	16,411
Meat products[2]	3,723	3,749	3,765	3,693	3,746	45,078	1,297	1,228	1,261	1,330	1,237	1,245
Fats and oils	1,370	1,347	1,354	1,483	1,351	15,832	1,918	1,817	1,829	2,09[illegible]	2,042	2,096
Tobacco products	695	704	753	664	669	8,087	3,518	3,471	3,508	3,80[illegible]	3,77[illegible]	3,741
Textile mill products	3,356	3,269	3,302	3,281	2,949	37,583	5,345	5,269	5,253	5,381	[illegible]	5,118
Paper and allied products, total	4,417	4,358	4,296	4,473	4,174	50,2[illegible]	5,28[illegible]	5,220	5,200	5,275	[illegible]	5,[illegible]
Pulp, paper, etc.	1,947	1,913	1,876	1,948	1,861	21,965	2,026	2,004	2,004	2,045	1,99[illegible]	2,[illegible]
Paperboard containers	1,024	1,045	1,008	1,015	981	12,283	1,392	1,363	1,357	1,380	1,347	1,3[illegible]5
All other paper containers	1,446	1,400	1,412	1,510	1,332	15,979	1,862	1,853	1,839	1,850	1,889	1,877
Chemicals and allied products, total[2]	9,182	8,661	8,637	9,462	8,186	101,385	13,053	13,009	13,032	13,321	13,256	13,231
Industrial chemicals, except pigments	3,148	2,77[illegible]	2,906	3,211	2,833	34,495	3,885	3,850	3,890	3,974	3,950	3,952
Drugs, soap, and toiletries[2]	2,230	[illegible],153	2,169	2,308	2,043	24,55[illegible]	3,784	3,788	3,789	3,777	3,75[illegible]	3,7[illegible]8
Petroleum and coal products	7,883	7,878	7,484	7,998	7,749	82,640	5,127	5,156	5,148	5,003	5,101	5,142
Rubber and plastics products, n.e.c.	3,041	2,950	2,815	3,056	2,713	32,572	4,007	3,96[illegible]	3,888	4,074	3,982	3,93[illegible]
All other nondurable goods industries	7,920	7,728	7,779	7,970	7,015	89,190	9,084	9,055	9,181	8,978	[illegible],955	8,9[illegible]

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment[1]			Seasonally adjusted			Without seasonal adjustment[1]		
	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1977[p]	Jan. 1977[r]	Annual total 1976[r]	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]
All manufacturing industries: Total[2]	107,049	105,356	107,314	108,516	99,276	1,186,530	177,764	177,179	175,453	177,933	176,648	174,222
Total, excluding transportation	94,633	93,016	91,734	96,025	86,995	1,048,757	125,249	124,435	122,700	124,903	123,172	121,225
Durable goods industries, total[2]	55,213	54,943	57,265	55,895	51,379	608,363	169,464	168,962	167,261	169,610	168,599	166,408
Primary metals, total	8,054	7,987	7,252	8,875	7,641	90,046	17,090	16,658	16,004	17,470	16,401	15,740
Blast furnaces, steel mills	4,122	4,054	3,808	4,686	3,809	45,846	10,971	10,580	9,993	11,147	10,315	9,963
Nonferrous and other primary metal products	3,055	3,040	2,629	3,336	3,004	34,956	5,024	5,000	4,980	5,230	4,995	4,736
Fabricated metal products	6,973	6,924	7,072	6,858	6,334	79,256	23,400	23,464	23,302	23,208	23,261	23,090
Machinery, except electrical, total[2]	10,032	10,219	9,629	10,340	9,520	108,209	44,404	44,279	43,808	44,205	44,064	43,662
Engines and turbines	739	953	557	807	764	10,298	16,403	16,565	16,533	16,446	16,527	16,590
Construction, mining, and material handling equipment	1,830	1,663	1,762	1,825	1,621	18,222	6,508	6,397	6,396	6,365	6,352	6,339
Metalworking machinery	499	606	677	510	536	6,797	2,936	2,992	2,910	2,872	2,935	2,890
General industrial machinery	898	1,077	873	936	996	9,157	6,656	6,666	6,400	6,689	6,666	6,393
Electrical machinery, total	6,757	6,871	7,139	6,829	6,314	74,029	23,762	23,575	23,251	23,551	23,375	23,071
Electrical transmission and distribution equipment and industrial apparatus	1,291	1,418	1,300	1,330	1,311	13,564	5,982	5,985	5,890	5,957	5,976	5,853
Household appliances	900	956	938	886	786	9,845	325	361	292	320	320	261
Radio and TV	630	299	487	634	231	5,657	568	400	546	536	370	525
Communication equipment	1,693	1,837	2,143	1,670	1,851	20,164	10,886	10,848	10,674	10,831	10,843	10,642
Transportation equipment, total	12,416	12,340	15,580	12,491	12,281	137,773	52,515	52,744	52,753	53,030	53,476	52,997
Aircraft, missiles, and parts	2,355	2,311	3,924	2,347	2,463	30,009	34,545	34,793	34,746	34,884	35,254	35,014
Shipbuilding and military tank vehicles	349	357	822	406	532	7,205	9,621	9,855	10,134	9,759	9,906	9,963
All other durable goods industries	10,981	10,602	10,593	10,502	9,289	119,050	8,293	8,242	8,143	8,146	8,022	7,848
Nondurable goods industries, total[2]	51,836	50,413	50,049	52,621	47,897	578,167	8,300	8,217	8,192	8,323	8,049	7,814
Industries with unfilled orders[2]	11,271	11,019	11,289	12,249	10,604	125,966	8,300	8,217	8,192	8,323	8,049	7,814
Industries without unfilled orders[2]	40,565	39,394	38,760	40,372	37,293	452,201	-	-	-	-	-	-

- Represents zero. [p]Preliminary. [r]Revised.

[1]Adjusted for trading-day and calendar-month variations.

[2]The following data reflect revised December 1976 shipments and new orders (without seasonal adjustment):

Item	Shipments	New orders
All manufacturing industries, total	98,358	99,910
Durable goods industries, total	(X)	52,067
Machinery, except electrical, total	(X)	9,256
Nondurable goods industries, total	47,632	47,843
Food and kindred products	14,599	(X)
Meat products	3,795	(X)
Chemical and allied products	7,979	(X)
Drug, soap and toiletries	2,049	(X)
Industries with unfilled orders	(X)	13,617
Industries without unfilled orders	(X)	34,226

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment[1]			Seasonally adjusted			Without seasonal adjustment		
	Feb. 1977p	Jan. 1977r	Dec. 1976r	Feb. 1977p	Jan. 1977r	Annual total 1976	Feb. 1977p	Jan. 1977r	Dec. 1976r	Feb. 1977p	Jan. 1977r	Dec. 1976r
	Shipments						Total inventories					
All manufacturing industries, total[2].	106,466	103,637	105,189	105,189	96,853	1,182,497	168,515	167,482	166,587	170,463	169,300	167,299
Durable goods industries, total[2].....	54,713	53,247	55,520	54,881	49,189	604,663	107,315	106,562	105,729	108,534	107,378	105,516
Nondurable goods industries, total[2].....	51,753	50,390	49,669	52,347	47,664	577,834	61,200	60,920	60,858	61,929	61,922	61,783
Industry groups arranged by market categories:												
Home goods and apparel.....	8,600	8,378	8,462	8,556	7,321	97,374	14,061	14,003	14,039	14,032	13,904	13,797
Consumer staples[2].....	18,990	18,516	18,317	19,066	17,579	217,380	23,165	23,164	23,119	23,575	23,809	23,774
Equipment and defense products, except automotive[2].....	14,478	14,203	14,888	14,688	13,312	162,407	39,294	39,044	38,842	39,797	39,307	38,753
Automotive equipment.....	10,413	10,267	11,711	10,544	9,756	109,437	8,709	8,601	8,430	8,889	8,775	8,482
Construction materials, supplies, and intermediate products.....	9,183	8,611	8,898	8,577	7,218	100,297	14,674	14,615	14,161	14,755	14,593	14,038
Other materials and supplies and intermediate products.....	44,802	43,662	42,913	45,797	41,667	495,603	68,612	68,055	67,996	69,415	68,912	68,455
Supplementary series:												
Household durable goods industries.....	3,404	3,333	3,319	3,331	2,892	38,579	7,079	6,936	6,923	7,115	6,927	6,855
Capital goods industries.....	16,490	16,123	16,671	16,898	15,060	181,816	43,821	43,311	43,104	44,277	43,610	43,027
Nondefense.....	13,928	13,727	14,208	14,320	12,713	155,510	37,242	36,702	36,527	37,611	36,900	36,425
Defense.....	2,562	2,396	2,463	2,578	2,347	26,306	6,579	6,609	6,577	6,666	6,710	6,602
	New orders						Unfilled orders					
All manufacturing industries, total[2].	107,049	105,356	107,314	108,516	99,276	1,186,530	177,764	177,179	175,453	177,933	176,648	174,222
Durable goods industries, total[2].....	55,213	54,943	57,265	55,875	51,379	608,363	169,464	168,962	167,261	169,610	168,599	166,408
Nondurable goods industries, total[2].....	51,836	50,413	50,049	52,621	47,897	578,167	8,300	8,217	8,192	8,323	8,049	7,814
Industry groups arranged by market categories:												
Home goods and apparel.....	8,708	8,411	8,470	8,722	7,325	97,453	3,515	3,366	3,302	3,389	3,186	3,130
Consumer staples[2].....	19,028	18,546	18,310	19,104	17,631	217,425	101,115	100,978	101,063	101,160	101,468	101,052
Equipment and defense products, except automotive[2].....	14,433	13,900	16,154	14,342	13,465	163,587						
Automotive equipment.....	10,594	10,482	11,800	10,581	10,017	110,631	18,182	18,135	18,014	17,981	17,997	17,863
Construction materials, supplies, and intermediate products.....	9,230	8,733	9,075	8,561	7,351	99,180						
Other materials and supplies and intermediate products.....	45,056	45,284	43,505	47,206	43,487	498,253	54,952	54,700	53,074	55,403	53,997	52,177
Supplementary series:[2]												
Household durable goods industries.....	3,527	3,351	3,314	3,517	2,882	38,599	2,788	2,663	2,644	2,652	2,465	2,477
Capital goods industries[2].....	16,239	16,476	18,110	16,552	15,903	183,464	110,163	110,415	110,060	110,330	110,676	109,832
Nondefense[2].....	14,413	14,778	14,112	14,776	13,846	154,041	79,364	78,879	77,829	79,232	78,776	77,644
Defense.....	1,826	1,698	3,998	1,776	2,057	29,422	30,799	31,536	32,231	31,098	31,900	32,188

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in defense series. p Preliminary. r Revised. [1] Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. [2] The following data reflect revised December 1976 shipments and new orders (without seasonal adjustment):

Item	Shipments	New orders
All manufacturing industries, total.....	98,358	99,910
Durable.....	(X)	52,067
Nondurable.....	47,632	47,843
Industry groups arranged by market categories:		
Consumer staples.....	18,210	18,209
Equipment and defense products, except automotive..	(X)	15,761
Supplementary series:		
Capital goods industries.....	(X)	17,541
Nondefense.....	(X)	13,503

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1972-1976	
				3 months			12 months		
	Jan.-Feb. 1977	Dec. 1976 Jan. 1977	Nov.-Dec. 1976	Nov. 1976 Feb. 1977	Aug.-Nov. 1976	May-Aug. 1976	Feb. 1976 Feb. 1977	Average rise	Average decline
Shipments:									
All manufacturing industries.....	+2.7	-1.5	+4.6	+1.9	+0.4	+0.3	+0.9	+1.5	-1.1
Durable goods industries, total.....	+2.8	-4.1	+8.0	+2.2	-0.1	+0.7	+1.1	+1.8	-1.5
Nondurable goods industries, total.....	+2.7	+1.5	+1.0	+1.7	+1.0	-0.1	+0.8	+1.6	-1.1
Total inventories:									
All manufacturing industries.....	+0.6	+0.5	-0.3	+0.3	+0.8	+0.7	+0.6	+1.0	-0.4
New orders:									
All manufacturing industries.....	+1.6	-1.8	+5.8	+1.9	+1.2	-0.5	+1.0	+1.9	-1.7
Durable goods industries, total.....	+0.5	-4.1	+9.2	+1.9	+1.3	-0.6	+1.2	+3.1	-2.1
Nondurable goods industries, total.....	+2.8	+0.7	+2.1	+1.9	+1.0	-0.3	+0.8	+1.8	-1.0
Unfilled orders:									
Durable goods industries, total.....	+0.3	+1.0	+1.1	+0.6	+0.6	-0.1	+0.4	+1.2	-2.7

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1977[p]	Jan. 1976[r]	Dec. 1976[r]	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]
	Total						Materials and supplies					
All manufacturing industries, total..	168,515	167,482	166,587	170,463	169,300	167,299	60,908	60,819	60,634	61,387	61,849	61,774
Durable goods industries, total.....	107,315	106,562	105,729	108,534	107,378	105,516	35,230	35,141	34,621	35,278	35,560	35,188
Stone, clay, and glass products.....	4,257	4,248	4,194	4,328	4,262	4,114	1,447	1,441	1,402	1,447	1,440	1,409
Primary metals.....	17,292	17,197	17,329	17,619	17,612	17,500	8,169	8,044	8,059	8,155	8,253	8,286
Machinery (electrical and nonelectrical).	38,544	38,335	38,099	38,948	38,504	37,972	10,848	10,876	10,794	10,905	10,919	10,840
Tansportation equipment.....	19,588	19,245	19,121	19,891	19,628	19,230	4,864	4,800	4,586	4,903	4,919	4,745
All other durable goods industries.....	27,634	27,537	26,986	27,748	27,372	26,700	9,902	9,980	9,780	9,868	10,029	9,908
Nondurable goods industries, total.....	61,200	60,920	60,858	61,929	61,922	61,783	25,678	25,678	26,013	26,109	26,289	26,586
Chemicals and allied products.....	13,053	13,009	13,032	13,321	13,256	13,231	5,246	5,090	5,375	5,281	5,179	5,367
Petroleum and coal products.....	5,127	5,156	5,148	5,003	5,101	5,142	1,810	1,890	1,868	1,778	1,859	1,816
Rubber and plastics products, n.e.c.....	4,007	3,965	3,888	4,074	3,982	3,936	1,476	1,531	1,627	1,490	1,526	1,649
All other nondurable goods industries....	39,013	38,790	38,790	39,531	39,583	39,474	17,146	17,167	17,143	17,560	17,725	17,754
	Work in process						Finished goods					
All manufacturing industries, total..	52,812	52,302	52,202	53,282	52,606	51,753	54,795	54,361	53,751	55,794	54,845	53,772
Durable goods industries, total.....	43,619	43,235	43,020	44,053	43,460	42,645	28,466	28,186	28,088	29,203	28,358	27,683
Stone, clay, and glass products.....	662	658	646	680	661	607	2,148	2,149	2,146	2,201	2,161	2,098
Primary metals.....	5,869	5,838	5,950	6,008	5,948	5,867	3,254	3,315	3,320	3,456	3,411	3,347
Machinery (electrical and nonelectrical).	16,447	16,455	16,277	16,599	16,551	16,191	11,249	11,004	11,028	11,444	11,034	10,941
Transportation equipment.....	12,274	11,972	12,059	12,435	12,149	12,028	2,450	2,473	2,476	2,553	2,560	2,457
All other durable goods industries.....	8,367	8,312	8,088	8,331	8,151	7,952	9,365	9,245	9,118	9,549	9,192	8,840
Nondurable goods industries, total.....	9,193	9,067	9,182	9,229	9,146	9,108	26,329	26,175	25,663	26,591	26,487	26,089
Chemicals and allied products.....	2,107	2,145	2,154	2,125	2,156	2,144	5,700	5,774	5,503	5,915	5,921	5,720
Petroleum and coal products.....	1,143	1,108	1,142	1,106	1,083	1,135	2,174	2,158	2,138	2,119	2,159	2,191
Rubber and plastics products, n.e.c.....	708	697	692	743	725	698	1,823	1,737	1,569	1,841	1,731	1,589
All other nondurable goods industries....	5,235	5,117	5,194	5,255	5,182	5,131	16,632	16,506	16,453	16,716	16,676	16,589

[p]Preliminary.
[r]Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio[1] (months' backlog)			
	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1976	Feb. 1977[p]	Jan. 1977[r]	Dec. 1976[r]	Feb. 1976
All manufacturing industries, total	1.58	1.62	1.58	1.64	3.29	3.35	3.27	3.46
Durable goods industries, total	1.96	2.00	1.90	2.06	3.95	4.03	3.91	4.19
Stone, clay, and glass products	1.56	1.61	1.55	1.52	0.95	0.97	0.95	1.15
Primary metals	2.27	2.34	2.37	2.20	2.24	2.27	2.19	2.16
Fabricated metals	1.88	1.97	1.89	1.98	3.65	3.78	3.65	4.01
Machinery, except electrical	2.45	2.49	2.48	2.65	4.94	5.03	5.03	5.75
Electrical machinery	2.17	2.15	2.11	2.23	3.62	3.60	3.47	3.72
Transportation equipment	1.55	1.56	1.34	1.74	8.75	8.93	8.09	8.43
Instruments and related products	2.08	2.09	2.08	2.19	1.62	1.65	1.67	1.68
Nondurable goods industries, total	1.18	1.21	1.23	1.20	0.74	0.75	0.75	0.77
Food and kindred products	1.03	1.06	1.07	1.02	(X)	(X)	(X)	(X)
Tobacco products	5.06	4.93	4.66	5.09	(X)	(X)	(X)	(X)
Textile mill products	1.59	1.61	1.59	1.54	(NA)	(NA)	(NA)	(NA)
Paper and allied products	1.20	1.20	1.21	1.14	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products	1.42	1.50	1.51	1.44	(X)	(X)	(X)	(X)
Petroleum and coal products	0.65	0.65	0.69	0.71	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.	1.32	1.34	1.38	1.39	(X)	(X)	(X)	(X)

NA) Not available. [p]Preliminary. [r]Revised. (X) Not applicable.

[1]Excludes the following industries with no unfilled orders: Wood and lumber products; glass containers; metal cans, barrels and drums; motor vehicles assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

APPENDIX

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the Annual Survey of Manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments—Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories—End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders—Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract

U.S. Department
of Commerce
BUREAU OF THE CENSUS
Washington, D.C. 20233
Official Business

UNIVERSITY OF FLORIDA
3 1262 08589 4870
COM-202
U.S.MAIL

change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.